

SEQUENCE LISTING

<110> Barber, Elizabeth K

<120> Gene Expression Control Element DNA

<130> 896034605001

<150> US 60/237,079

<151> 2000-09-30

<160> 33

<170> PatentIn version 3.1

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<211> 137

<212> DNA

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<221> exon

<222> (3) .. (137)

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<221> polyA_site

<222> (130) .. (135)

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Sequence 1: 137 bp

0996664-0996660

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 Tyr Lys Gly Lys Arg Lys Arg Asn Gly Gln Val Val Lys Leu
 1 5 10

tga act cag gtg tgc aca att atc agg aac acc cca aaa cca aag tga 95
 Thr Gln Val Cys Thr Ile Ile Arg Asn Thr Pro Lys Pro Lys
 15 20 25

ggt aga aat agc atg aga agc cgt gtt tga tgt taa tta att 137
 Gly Arg Asn Ser Met Arg Ser Arg Val Cys Leu Ile
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<210> 2

<211> 996

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<222> (1) .. (996)

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<221> misc_feature

<222> (710) .. (996)

<223> Nucleotides 710-996 are homologous to a portion of human dystroph
 in DNA in the region of exon 79 except that nucleotides 860-996 a
 re inverted in comparison to the orientation of the same sequence
 in the dystrophin DNA

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 Val Val Leu Ile Val Lys Lys Met Phe Val Asn Thr Ser Arg Glu
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taa gta atc aat caa tca ctc ata gcc aag gtg gaa aag atg tat ccc 96
 Val Ile Asn Gln Ser Leu Ile Ala Lys Val Glu Lys Met Tyr Pro

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att	ctt	ttg	ata	tat	att	tac	att	ggg	aac	ctg	aat	gta	gct	tga	cat	192				
Ile	Leu	Leu	Ile	Tyr	Ile	Tyr	Ile	Gly	Asn	Leu	Asn	Val	Ala		His					
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ttt	tcc	atg	taa	aca	cca	gta	gcc	tga	tcc	aac	att	aag	ctg	ata	cta	240				
Phe	Ser	Met		Thr	Pro	Val	Ala		Ser	Asn	Ile	Lys	Leu	Ile	Leu					
				65					70					75						
aca	aac	aac	gtg	taa	tgg	ctt	cat	taa	taa	ggc	ttt	gct	tct	tcc	tgg	288				
Thr	Asn	Asn	Val		Trp	Leu	His			Gly	Phe	Ala	Ser	Ser	Trp					
					80										85					
aaa	ctg	gtg	aaa	aat	caa	acc	ttg	ttg	tgt	aca	ccc	tcg	atg	cag	ctt	336				
Lys	Leu	Val	Lys	Asn	Gln	Thr	Leu	Leu	Cys	Thr	Pro	Ser	Met	Gln	Leu					
				90					95					100						
ctg	tgt	tgt	ctt	cac	cca	gaa	atg	ggg	aat	gat	ttc	cca	aat	ggc	aaa	384				
Leu	Cys	Cys	Leu	His	Pro	Glu	Met	Gly	Asn	Asp	Phe	Pro	Asn	Gly	Lys					
					110					115					120					
gaa	aca	gag	tga	tgc	tat	cta	tct	gca	cct	ttt	gta	aag	tct	gtc	ttt	432				
Glu	Thr	Glu		Cys	Tyr	Leu	Ser	Ala	Pro	Phe	Val	Lys	Ser	Val	Phe					
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ctt	tct	ctt	tgt	ttt	cca	gga	cac	aat	gta	gga	agt	ctt	ttc	cac	atg	480				
Leu	Ser	Leu	Cys	Phe	Pro	Gly	His	Asn	Val	Gly	Ser	Leu	Phe	His	Met					
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gca	gat	gat	ttg	ggc	aga	gcg	atg	gag	tcc	tta	gta	tca	gtc	atg	aca	528				
Ala	Asp	Asp	Leu	Gly	Arg	Ala	Met	Glu	Ser	Leu	Val	Ser	Val	Met	Thr					
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gat	gaa	gaa	gga	gca	gaa	taa	atg	ttt	tac	aac	tcc	tga	ttc	ccg	cat	576				
Asp	Glu	Glu	Gly	Ala	Glu		Met	Phe	Tyr	Asn	Ser		Phe	Pro	His					
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Gly	Phe	Tyr	Asn	Ile	His	Thr	Thr	Lys	Arg	Ile	Arg	Gln		Glu	Phe					
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aga	ttt	cag	tag	ttt	cta	agt	ctg	tta	ttg	ttt	tgt	taa	caa	tgg	cag	720				
Arg	Phe	Gln		Phe	Leu	Ser	Leu	Leu	Leu	Phe	Cys		Gln	Trp	Gln					
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gtt	tta	cac	gtc	tat	gca	att	gta	caa	aaa	agt	tat	aag	aaa	act	aca	768				
Val	Leu	His	Val	Tyr	Ala	Ile	Val	Gln	Lys	Ser	Tyr	Lys	Lys	Thr	Thr					
				230					235					24						

Climatic variables		Soil variables		Vegetation variables		Topographic variables		Human variables	
Variable	Unit	Variable	Unit	Variable	Unit	Variable	Unit	Variable	Unit
Annual precipitation	mm	Soil pH		Vegetation cover	%	Elevation	m	Population density	people/km ²
Annual temperature	°C	Soil organic carbon	%	Vegetation biomass	kg/m ²	Slope	°	Distance to nearest road	m
Annual relative humidity	%	Soil bulk density	g/cm ³	Vegetation species richness	species/m ²	Aspect	°	Distance to nearest river	m
Annual solar radiation	h/h	Soil water content	%	Vegetation functional group richness	groups/m ²	Distance to nearest urban area	m	Distance to nearest agricultural area	m
Annual wind speed	m/s	Soil nitrogen content	%	Vegetation functional group biomass	kg/m ²	Distance to nearest forest area	m	Distance to nearest protected area	m
Annual cloud cover	%	Soil phosphorus content	%	Vegetation functional group diversity	groups/m ²	Distance to nearest wetland area	m	Distance to nearest coastal area	m
Annual fog frequency	days/year	Soil potassium content	%	Vegetation functional group evenness	groups/m ²	Distance to nearest mountain area	m	Distance to nearest plateau area	m
Annual snow cover	days/year	Soil calcium content	%	Vegetation functional group richness	groups/m ²	Distance to nearest valley area	m	Distance to nearest plain area	m
Annual ice cover	days/year	Soil magnesium content	%	Vegetation functional group biomass	kg/m ²	Distance to nearest hill area	m	Distance to nearest basin area	m
Annual hail frequency	days/year	Soil sodium content	%	Vegetation functional group diversity	groups/m ²	Distance to nearest ridge area	m	Distance to nearest depression area	m
Annual lightning frequency	days/year	Soil zinc content	%	Vegetation functional group evenness	groups/m ²	Distance to nearest peak area	m	Distance to nearest saddle area	m
Annual thunder frequency	days/year	Soil copper content	%	Vegetation functional group richness	groups/m ²	Distance to nearest crest area	m	Distance to nearest trough area	m
Annual storm frequency	days/year	Soil iron content	%	Vegetation functional group biomass	kg/m ²	Distance to nearest spur area	m	Distance to nearest gully area	m
Annual drought frequency	days/year	Soil manganese content	%	Vegetation functional group diversity	groups/m ²	Distance to nearest escarpment area	m	Distance to nearest ravine area	m
Annual flood frequency	days/year	Soil boron content	%	Vegetation functional group evenness	groups/m ²	Distance to nearest plateau area	m	Distance to nearest valley area	m
Annual landslide frequency	days/year	Soil cobalt content	%	Vegetation functional group richness	groups/m ²	Distance to nearest mountain area	m	Distance to nearest plain area	m
Annual earthquake frequency	days/year	Soil nickel content	%	Vegetation functional group biomass	kg/m ²	Distance to nearest hill area	m	Distance to nearest basin area	m
Annual volcanic activity	days/year	Soil selenium content	%	Vegetation functional group diversity	groups/m ²	Distance to nearest ridge area	m	Distance to nearest depression area	m
Annual forest fire frequency	days/year	Soil vanadium content	%	Vegetation functional group evenness	groups/m ²	Distance to nearest peak area	m	Distance to nearest saddle area	m
Annual insect infestation frequency	days/year	Soil chromium content	%	Vegetation functional group richness	groups/m ²	Distance to nearest crest area	m	Distance to nearest trough area	m
Annual disease outbreak frequency	days/year	Soil molybdenum content	%	Vegetation functional group biomass	kg/m ²	Distance to nearest spur area	m	Distance to nearest gully area	m
Annual pest infestation frequency	days/year	Soil cadmium content	%	Vegetation functional group diversity	groups/m ²	Distance to nearest escarpment area	m	Distance to nearest ravine area	m
Annual herbivory frequency	days/year	Soil arsenic content	%	Vegetation functional group evenness	groups/m ²	Distance to nearest plateau area	m	Distance to nearest valley area	m
Annual fungal infection frequency	days/year	Soil lead content	%	Vegetation functional group richness	groups/m ²	Distance to nearest mountain area	m	Distance to nearest plain area	m
Annual bacterial infection frequency	days/year	Soil mercury content	%	Vegetation functional group biomass	kg/m ²	Distance to nearest hill area	m	Distance to nearest basin area	m
Annual viral infection frequency	days/year	Soil thallium content	%	Vegetation functional group diversity	groups/m ²	Distance to nearest ridge area	m	Distance to nearest depression area	m
Annual parasitic infection frequency	days/year	Soil antimony content	%	Vegetation functional group evenness	groups/m ²	Distance to nearest peak area	m	Distance to nearest saddle area	m
Annual protozoan infection frequency	days/year	Soil beryllium content	%	Vegetation functional group richness	groups/m ²	Distance to nearest crest area	m	Distance to nearest trough area	m
Annual nematode infection frequency	days/year	Soil hafnium content	%	Vegetation functional group biomass	kg/m ²	Distance to nearest spur area	m	Distance to nearest gully area	m
Annual arachnid infection frequency	days/year	Soil tantalum content	%	Vegetation functional group diversity	groups/m ²	Distance to nearest escarpment area	m	Distance to nearest ravine area	m
Annual insectivore infection frequency	days/year	Soil tungsten content	%	Vegetation functional group evenness	groups/m ²	Distance to nearest plateau area	m	Distance to nearest valley area	m
Annual predator infection frequency	days/year	Soil rhenium content	%	Vegetation functional group richness	groups/m ²	Distance to nearest mountain area	m	Distance to nearest plain area	m
Annual scavenger infection frequency	days/year	Soil ruthenium content	%	Vegetation functional group biomass	kg/m ²	Distance to nearest hill area	m	Distance to nearest basin area	m
Annual decomposer infection frequency	days/year	Soil rhodium content	%	Vegetation functional group diversity	groups/m ²	Distance to nearest ridge area	m	Distance to nearest depression area	m
Annual pathogen infection frequency	days/year	Soil palladium content	%	Vegetation functional group evenness	groups/m ²	Distance to nearest peak area	m	Distance to nearest saddle area	m
Annual parasite infection frequency	days/year	Soil silver content	%	Vegetation functional group richness	groups/m ²	Distance to nearest crest area	m	Distance to nearest trough area	m
Annual symbiont infection frequency	days/year	Soil gold content	%	Vegetation functional group biomass	kg/m ²	Distance to nearest spur area	m	Distance to nearest gully area	m
Annual commensal infection frequency	days/year	Soil platinum content	%	Vegetation functional group diversity	groups/m ²	Distance to nearest escarpment area	m	Distance to nearest ravine area	m
Annual mutualist infection frequency	days/year	Soil iridium content	%	Vegetation functional group evenness	groups/m ²				

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General Information	
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Project Number	...
Project Manager	...
Project Sponsor	...
Project Start Date	...
Project End Date	...
Project Status	...
Project Description	...
Project Objectives	...
Project Scope	...
Project Budget	...
Project Resources	...
Project Risks	...
Project Issues	...
Project Deliverables	...
Project Milestones	...
Project Communication	...
Project Reporting	...
Project Documentation	...
Project Change Management	...
Project Quality Management	...
Project Risk Management	...
Project Stakeholder Management	...
Project Team Management	...
Project Procurement Management	...
Project Integration Management	...
Project Monitoring and Control	...
Project Closing	...

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35 40 45

Gly Asn Leu Asn Val Ala Arg His Phe Ser Met Lys Thr Pro Val Ala
50 55 60

Arg Ser Asn Ile Lys Leu Ile Leu Thr Asn Asn Val Lys Trp Leu His
65 70 75 80

Lys Lys Gly Phe Ala Ser Ser Trp Lys Leu Val Lys Asn Gln Thr Leu
85 90 95

Leu Cys Thr Pro Ser Met Gln Leu Leu Cys Cys Leu His Pro Glu Met
100 105 110

T03260-499660

10996364-09996364

Gly Asn Asp Phe Pro Asn Gly Lys Glu Thr Glu Arg Cys Tyr Leu Ser
115 120 125

Ala Pro Phe Val Lys Ser Val Phe Leu Ser Leu Cys Phe Pro Gly His
130 135 140

Asn Val Gly Ser Leu Phe His Met Ala Asp Asp Leu Gly Arg Ala Met
145 150 155 160

Glu Ser Leu Val Ser Val Met Thr Asp Glu Glu Gly Ala Glu Lys Met
165 170 175

Phe Tyr Asn Ser Arg Phe Pro His Gly Phe Tyr Asn Ile His Thr Thr
180 185 190

Lys Arg Ile Arg Gln Lys Glu Phe Thr Arg Asn Lys Ser Ile Phe Leu
195 200 205

Arg Arg Val Val Val Leu Tyr Cys Arg Phe Gln Lys Phe Leu Ser Leu
210 215 220

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225 230 235 240

Gln Lys Ser Tyr Lys Lys Thr Thr Cys Lys Ile Leu Ile Ala Lys Lys
245 250 255

Leu Ala Ile Ser Leu Tyr Gly Thr His Phe Gly Leu Phe Lys Asn Leu
260 265 270

Lys Gln Leu Lys Arg Lys Asn Tyr Lys Gly Lys Arg Lys Lys Arg Asn
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Ile	Ile	Ile	Phe	Asn	Pro	Ser	Lys	Ser	Arg	Glu	Lys	Ile	Ala	Thr	Ser	
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acc	ata	gcc	tca	gaa	gca	agc	caa	cag	cct	gaa	aca	gct	ttg	aaa	tga	144
Thr	Ile	Ala	Ser	Glu	Ala	Ser	Gln	Gln	Pro	Glu	Thr	Ala	Leu	Lys		
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Lys	Val	Gly	Val	Ala	Val	Met	Val	Ala	Val	Ile	Met	Val	Thr	Asp	Gly	
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Trp	Val	Leu	Val	Met	Val	Val	Val	Val	Val	Lys	Val	Val	Met			
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